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EXAMINER	
LEE, ANDREW CHUNG CHEUNG	
ART UNIT	**PAPER NUMBER**
2616	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/12/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/080,869	CHOW ET AL.	
	Examiner	Art Unit	
	Andrew C. Lee	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *31 January 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-48* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-48* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Claims 1 – 48 are pending.

Allowability of claim is withdrawn

2. The indicated allowability of claims 10, 37 is withdrawn in view of the newly discovered the discrepancies in the amended claims.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 7, 10, 37 are rejected under 2164.08(a) Single Means Claim. A single means claim, i.e., where a means recitation does not appear in combination with another recited element of means, is subject to an undue breadth rejection under 35 U.S.C. 112, first paragraph. In re Hyatt, 708 F.2d 712, 714-715, 218 USPQ 195, 197 (Fed. Cir. 1983) (A single means claim which covered every conceivable means for achieving the stated purpose was held nonenabling for the scope of the claim because the specification disclosed at most only those means known to the inventor.). When claims depend on a recited property, a fact situation comparable to Hyatt is possible, where the claim covers every conceivable structure (means) for achieving the stated property (result) while the specification discloses at most only those known to the inventor.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1, 4, 8, 2, 5, 9, 15, 18, 20, 32, 39, 42, 44, 14, 19, 38, 43, 22, 46, are rejected under 35 U.S.C. 102(e) as being unpatentable over Hegde et al. (US 6810031 B1) in view of Bowen et al. (5436898).

Regarding claims 1, 4, 8, Hedge et al. disclose the limitation of a method comprising: transferring data on a first port during a current cycle until a predetermined number of bytes less an overshoot value for the first port has been transferred on the first port ("determining an allowable number of data bytes for transmission during a cycle" correlates to transferring data on a first port during a current cycle, "a predetermined number of bytes less an overshoot value" interpreted as an allowable number of data bytes; Fig. 1, column 15, lines 5 – 6); and updating the overshoot value for the first port based on the number of bytes transferred on the first port ("update the data byte transmission credit" as updating the overshoot value; column 15, lines 12 – 14). Hedge et al. also teach implicitly continuing to transfer data on the first port during the current cycle until a complete packet has been transferred on the first port ("maintaining a data byte

transmission credit and transmitting during a subsequently cycle" correlates to continuing to transfer data on the first port during the current cycle; column 15, lines 7 – 11);

Hedge et al. do not disclose explicitly continuing to transfer data on the first port during the current cycle until a complete packet has been transferred on the first port.

Bowen et al. teach continuing to transfer data on the first port during the current cycle until a complete packet has been transferred on the first port ("continues to be sent through the next cycle unit the completion of the isochronous channel transfers" correlates to continuing to transfer data on the first port during the current cycle until a complete packet has been transferred; column 3, lines 50 – 56).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hedge et al. to include continuing to transfer data on the first port during the current cycle until a complete packet has been transferred on the first port such as that taught by Bowen et al. in order to provide isochronous channels to guarantee that appropriate bandwidth is dedicated to video, voice and other types of isochronous data (as suggested by Bowen et al., see column 3, lines 63 – 66).

Regarding claims 2, 5, 9, 15, 18, 20, 32, 39, 42, 44, Hedge et al. disclose the limitation of a method, device, network of claimed wherein the updating of the overshoot value for the first port based on the number of bytes transferred on the

first port comprises: upon determining that the number of bytes transferred on the first port is greater than the predetermined number of bytes less the overshoot value for the first port ("determining a maximum allowable data byte transmission credit (TCL) for transmitting extra data bytes" correlates to upon determining that the number of bytes transferred on the first port is greater than the predetermined number of bytes less the overshoot value; column 15, lines 51 – 56), setting the overshoot value for the first port to the number of bytes transferred on the first port in excess of the predetermined number less the overshoot value for the first port ("updating current credit balance (CL)" correlates to setting the overshoot value; column 16, lines 1 – 2; recited "credit is preferably provided as a counter" as a first residue counter coupled with the first port to update the overshoot value; column 7, lines 45 – 55).

Regarding claims 14, 19, 38, 43, Hegde et al. disclose the limitation of an apparatus, network ("device for controlling bandwidth distribution" correlates to apparatus; column 3, line 57) comprising: a first port to transfer data during a current cycle until a predetermined number of bytes less an overshoot value for the first port has been transferred on the first port and to continue to transfer data during the current cycle until a complete packet has been transferred on the first port (Fig.1, element 102 line card 0 egress side, "determining an allowable number of data bytes for transmission during a cycle" correlates to transferring data on a first port during a current cycle; Fig. 1, column 15, lines 5 – 6; "maintaining a data byte transmission credit and transmitting during a

subsequently cycle" correlates to continuing to transfer data on the first port during the current cycle; column 15, lines 7 – 11) and a first residue counter coupled with the first port to update the overshoot value for the first port based on the number of bytes transferred on the first port ("credit is preferably provided as a counter" correlates to a first residue counter coupled with the first port to update the overshoot value; column 7, lines 45 – 55).

Regarding claims 22, 46, Hegde et al. disclose the limitation of an apparatus ("device for controlling bandwidth distribution" correlates to apparatus; column 3, line 57) comprising: a plurality of pairs of ports wherein a pair of ports comprises a port connected to a first interface to transfer data during a current cycle and a port connected to a second interface to transfer data during the current cycle (Fig.1, element 102 line card 0 egress side, "determining an allowable number of data bytes for transmission during a cycle" correlates to transferring data on a first port during a current cycle; Fig. 1, column 15, lines 5 – 6; "maintaining a data byte transmission credit and transmitting during a subsequently cycle" correlates to continuing to transfer data on the first port during the current cycle; column 15, lines 7 – 11); and a bandwidth balancing arbiter coupled with the plurality of ports to sequentially select each pair of ports of the plurality of pairs of ports to transfer data during the current cycle ("Bandwidth Distribution Protocol (BWDP) provides inputs to the traffic schedulers at the line cards or IPE cards" correlates to bandwidth balancing arbiter coupled with the plurality of ports; column 7, lines 40 – 55).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 3, 6, 16, 40, 45, 7, 17, 21, 41, 25, 28, 26, 29, 27, 30, 31,32, are rejected under 35 U.S.C. 103(a) as being unpatentable over Hegde et al. (US 6810031 B1) and Bowen et al. (5436898) as applied to claims 1, 4, 8, 2, 5, 9, 15, 18, 20, 32, 39, 42, 44, 14, 19, 38, 43, 22, 46 above, and further in view of Robert et al. (US 6920110 B2).

Regarding claims 3, 6, 16, 40, 45, Hedge et al. disclose the limitation of the method, network of claimed wherein the updating of the overshoot value for the first port based on the number of bytes transferred on the first port ("update the data byte transmission credit" correlates to updating the overshoot value; column 15, lines 12 – 14; "credit is preferably provided as a counter" correlates to a first residue counter coupled with the first port to update the overshoot value; column 7, lines 45 – 55) comprises: Hegde et al. do not teach upon determining that the number of bytes transferred on the first port is not greater than the predetermined number of bytes less the overshoot value for the first port, setting the overshoot value for the first port to zero. Robert et al. disclose the limitation of upon determining that the number of bytes transferred on the first port is not

greater than the predetermined number of bytes less the overshoot value for the first port, setting the overshoot value for the first port to zero ("If not, the actual usage is sampled again" correlates to the number of bytes transferred on the first port is not greater than the predetermined number of bytes less the overshoot value, 'the threshold is initially set to zero" correlates to setting the overshoot value for the first port to zero; Fig. 7, column 10, lines 23 – 32). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hegde et al. to include a upon determining that the number of bytes transferred on the first port is not greater than the predetermined number of bytes less the overshoot value for the first port, setting the overshoot value for the first port to zero such as that taught by Robert et al. in order to provide a method including the steps of monitoring the level of actual network bandwidth utilization and identifying a maximum monitored level of actual utilization and the method calculating a threshold level (as suggested by Roberts et al., see column 2, lines 17 – 23).

Regarding claims 7, 17, 21, 41, Hedge et al. disclose the limitation of the method, network of claimed wherein the updating of the overshoot value for the first port based on the number of bytes transferred on the first port ("update the data byte transmission credit" correlates to updating the overshoot value; column 15, lines 12 – 14; "credit is preferably provided as a counter" correlates to a first residue counter coupled with the first port to update the overshoot value; column 7, lines 45 – 55) comprises: Hegde et al. do not teach upon determining that a

number of bytes transferred on a first port during a current cycle is not greater than a predetermined number of bytes less an overshoot value for the first port and a packet was not transferred by the first port during the current cycle, maintaining the overshoot value for the first port; and upon determining that a number of bytes transferred on a first port during a current cycle is not greater than the predetermined number of bytes less the overshoot value for the first port and a packet was transferred by the first port during the current cycle, setting the overshoot value to zero.

Robert et al. disclose the limitation of upon determining that a number of bytes transferred on a first port during a current cycle is not greater than a predetermined number of bytes less an overshoot value for the first port and a packet was not transferred by the first port during the current cycle, maintaining the overshoot value for the first port ("If not, the actual usage is sampled again" correlates to the number of bytes transferred on the first port is not greater than the predetermined number of bytes less the overshoot value; "step 130, step 132" actual level < threshold correlates to a packet was transferred by the first port and maintain the overshoot value; Fig. 7, column 10, lines 54 – 62); and upon determining that a number of bytes transferred on a first port during a current cycle is not greater than the predetermined number of bytes less the overshoot value for the first port and a packet was transferred by the first port during the current cycle, setting the overshoot value to zero ("If not, the actual usage is sampled again" correlates to the number of bytes transferred on the first port is not greater than the predetermined number of bytes less the overshoot value,

'the threshold is initially set to zero" correlates to setting the overshoot value for the first port to zero; Fig. 7, column 10, lines 23 – 32).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hegde et al. to include explicitly upon determining that a number of bytes transferred on a first port during a current cycle is not greater than a predetermined number of bytes less an overshoot value for the first port and a packet was not transferred by the first port during the current cycle, maintaining the overshoot value for the first port; and upon determining that a number of bytes transferred on a first port during a current cycle is not greater than the predetermined number of bytes less the overshoot value for the first port and a packet was transferred by the first port during the current cycle, setting the overshoot value to zero such as that taught by Robert et al. in order to provide a method including the steps of monitoring the level of actual network bandwidth utilization and identifying a maximum monitored level of actual utilization and the method calculating a threshold level (as suggested by Roberts et al., see column 2, lines 17 – 23).

Regarding claims 25, 28, Hegde et al. disclose the limitation of a device that provides instructions that, when executed by a device ("device for controlling bandwidth distribution" correlates to a device; column 3, line 57), cause the machine to perform operations comprising: transferring data on a first port during a current cycle until a predetermined number of bytes less an overshoot value for the first port has been transferred on the first port (

"determining an allowable number of data bytes for transmission during a cycle" correlates to transferring data on a first port during a current cycle; Fig. 1, column 15, lines 5 – 6); continuing to transfer data on the first port during the current cycle until a complete packet has been transferred on the first port ("maintaining a data byte transmission credit and transmitting during a subsequently cycle" correlates to continuing to transfer data on the first port during the current cycle; column 15, lines 7 – 11); and updating the overshoot value for the first port based on the number of bytes transferred on the first port ("update the data byte transmission credit" correlates to updating the overshoot value; column 15, lines 12 – 14).

Hegde et al. do not teach a computer-readable medium. Roberts et al. disclose explicitly the limitation of a computer-readable medium ("computer-readable medium" correlates to computer-readable medium; column 2, lines 26 – 28).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hegde et al. to include a computer-readable medium such as that taught by Robert et al. in order to provide a method including the steps of monitoring the level of actual network bandwidth utilization and identifying a maximum monitored level of actual utilization and the method calculating a threshold level (as suggested by Roberts et al., see column 2, lines 17 – 23).

Regarding claims 26, 29, Hegde et al. disclose the limitation of a device of claimed wherein the updating of the overshoot value for the first port based on the number of bytes transferred on the first port ("update the data byte transmission credit" correlates to updating the overshoot value; column 15, lines 12 – 14) comprises: upon determining that the number of bytes transferred on the first port is greater than the predetermined number of bytes less the overshoot value for the first port ("determining a maximum allowable data byte transmission credit (TCL) for transmitting extra data bytes" correlates to upon determining that the number of bytes transferred on the first port is greater than the predetermined number of bytes less the overshoot value; column 15, lines 51 – 56), setting the overshoot value for the first port to the number of bytes transferred on the first port in excess of the predetermined number less the overshoot value for the first port ("updating current credit balance (CL)" correlates to setting the overshoot value; column 16, lines 1 – 2; recited "credit is preferably provided as a counter" as a first residue counter coupled with the first port to update the overshoot value; column 7, lines 45 – 55).

Hegde et al. do not teach a computer-readable medium.

Roberts et al. disclose the limitation of a computer-readable medium (recited "computer-readable medium" correlates to computer-readable medium; column 2, lines 26 – 28).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hegde et al. to include a computer-readable medium such as that taught by Robert et al. in order to provide a method

including the steps of monitoring the level of actual network bandwidth utilization and identifying a maximum monitored level of actual utilization and the method calculating a threshold level (as suggested by Roberts et al., see column 2, lines 17 – 23).

Regarding claims 27, 30, Hedge et al. disclose the limitation of the device of claimed wherein the updating of the overshoot value for the first port based on the number of bytes transferred on the first port ("update the data byte transmission credit" correlates to updating the overshoot value; column 15, lines 12 – 14; "credit is preferably provided as a counter" correlates to a first residue counter coupled with the first port to update the overshoot value; column 7, lines 45 – 55).

Hegde et al. do not disclose the computer-readable medium of upon determining that the number of bytes transferred on the first port is not greater than the predetermined number of bytes less the overshoot value for the first port, setting the overshoot value for the first port to zero.

Roberts et al. teach the limitation of a computer-readable medium of upon determining that the number of bytes transferred on the first port is not greater than the predetermined number of bytes less the overshoot value for the first port, setting the overshoot value for the first port to zero ("computer-readable medium" correlates to computer-readable medium; column 2, lines 26 – 28; "If not, the actual usage is sampled again" correlates to the number of bytes transferred on the first port is not greater than the predetermined number of

bytes less the overshoot value, 'the threshold is initially set to zero" correlates to setting the overshoot value for the first port to zero; Fig. 7, column 10, lines 23 – 32).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hegde et al. to include a computer-readable medium of upon determining that the number of bytes transferred on the first port is not greater than the predetermined number of bytes less the overshoot value for the first port, setting the overshoot value for the first port to zero such as that taught by Robert et al. in order to provide a method including the steps of monitoring the level of actual network bandwidth utilization and identifying a maximum monitored level of actual utilization and the method calculating a threshold level (as suggested by Roberts et al., see column 2, lines 17 – 23).

Regarding claim 31, Hedge et al. disclose the limitation of a device that provides instructions that, when executed by a device, cause the machine to perform operations comprising:

Hegde et al. do not disclose computer-readable medium upon determining that a number of bytes transferred on a first port during a current cycle is not greater than a predetermined number of bytes less an overshoot value for the first port and a packet was not transferred by the first port during the current cycle, maintaining the overshoot value for the first port; and upon determining that a number of bytes transferred on a first port during a current cycle is not greater than the predetermined number of bytes less the overshoot value for the

first port and a packet was transferred by the first port during the current cycle, setting the overshoot value to zero.

Robert et al. disclose the limitation of computer-readable medium upon determining that a number of bytes transferred on a first port during a current cycle is not greater than a predetermined number of bytes less an overshoot value for the first port and a packet was not transferred by the first port during the current cycle, maintaining the overshoot value for the first port ("If not, the actual usage is sampled again" correlates to the number of bytes transferred on the first port is not greater than the predetermined number of bytes less the overshoot value; "step 130, step 132 actual level < threshold" correlates to a packet was transferred by the first port and maintain the overshoot value; Fig. 7, column 10, lines 54 – 62); and upon determining that a number of bytes transferred on a first port during a current cycle is not greater than the predetermined number of bytes less the overshoot value for the first port and a packet was transferred by the first port during the current cycle, setting the overshoot value to zero ("If not, the actual usage is sampled again" correlates to the number of bytes transferred on the first port is not greater than the predetermined number of bytes less the overshoot value, 'the threshold is initially set to zero" correlates to setting the overshoot value for the first port to zero; Fig. 7, column 10, lines 23 – 32).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hegde et al. to include explicitly computer-readable medium upon determining that a number of bytes transferred on a first port during a current cycle is not greater than a predetermined number of bytes

less an overshoot value for the first port and a packet was not transferred by the first port during the current cycle, maintaining the overshoot value for the first port; and upon determining that a number of bytes transferred on a first port during a current cycle is not greater than the predetermined number of bytes less the overshoot value for the first port and a packet was transferred by the first port during the current cycle, setting the overshoot value to zero such as that taught by Robert et al. in order to provide a method including the steps of monitoring the level of actual network bandwidth utilization and identifying a maximum monitored level of actual utilization and the method calculating a threshold level (as suggested by Roberts et al., see column 2, lines 17 – 23).

Regarding claim 32, Hegde et al. disclose a device that provides instructions that, when executed by a device, cause the machine to perform operations comprising: upon determining that a packet may be transferred on a first port during a current cycle, transferring data on the first port during the current cycle until a predetermined number of bytes less an overshoot value for the first port has been transferred on the first port ("determining an allowable number of data bytes for transmission during a cycle" correlates to transferring data on a first port during a current cycle; Fig. 1, column 15, lines 5 – 6); upon determining that a packet has been partially transferred on the first port during the current cycle, continuing to transfer data on the first port during the current cycle until a complete packet has been transferred on the first port ("maintaining a data byte transmission credit and transmitting during a subsequently cycle"

correlates to continuing to transfer data on the first port during the current cycle; column 15, lines 7 – 11); and updating the overshoot value for the first port based on the number of bytes transferred on the first port ("update the data byte transmission credit" correlates to updating the overshoot value; column 15, lines 12 – 14).

Hegde et al. do not disclose a computer-readable medium.

Roberts et al. disclose the limitation of a computer-readable medium ("computer-readable medium" correlates to computer-readable medium; column 2, lines 26 – 28). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hegde et al. to include a computer-readable medium such as that taught by Robert et al. in order to provide a method including the steps of monitoring the level of actual network bandwidth utilization and identifying a maximum monitored level of actual utilization and the method calculating a threshold level (as suggested by Roberts et al., see column 2, lines 17 – 23).

8. Claims 23, 47, 24, 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hegde et al. (US 6810031 B1) and Robert et al. (US 6920110 B2) as applied to claims above 1, 4, 8, 2, 5, 9, 15, 18, 20, 32, 39, 42, 44, 14, 19, 38, 43, 22, 46, 3, 6, 16, 40, 45, 7, 17, 21, 41, 25, 28, 26, 29, 27, 30, 31,32, and further in view of Carr et al. (US 5751802).

Regarding claims 23, 47, Hegde et al. and Robert et al. fail to disclose the method, apparatus and network of claimed wherein one pair of ports of the plurality of pairs of ports comprises a port reserved for MDLs and a port reserved for FDLs. Carr et al. disclose the limitation of the method, apparatus and network of claimed wherein one pair of ports of the plurality of pairs of ports comprises a port reserved for MDLs (Fig. 1, Fig. 2, element 5, loop Maintenance operation system as a port reserved for MDLs) and a port reserved for FDLs (Fig. 1 and Fig. 2, element 7, loop facility assignment control system as a port reserved for FDLs; column 5, lines 29 – 38). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hegde et al. and Robert et al. to include method, apparatus and network of claimed wherein one pair of ports of the plurality of pairs of ports comprises a port reserved for MDLs and a port reserved for FDLs. such as that taught by Carr et al. in order to provide arrangements for provisioning service for a telecommunications customer (as suggested by Carr et al., see column 1, lines 10 –11).

Regarding claims 24, 48, Hegde et al. and Robert et al. fail to disclose the method, apparatus and network of claimed further comprising: selecting a port reserved for MDLs; transferring data on the port reserved for MDLs during the current cycle; selecting a port reserved for FDLs; and transferring data on the port reserved for FDLs during the current cycle. Carr et al. disclose the limitation of selecting a port reserved for MDLs (Fig. 1, Fig. 2, element 5, loop Maintenance operation system as a port reserved for MDLs); transferring data on the port

reserved for MDLs during the current cycle (column 5, lines 29 – 29 – 38); selecting a port reserved for FDLs (Fig. 1 and Fig. 2, element 7, loop facility assignment control system as a port reserved for FDLs); and transferring data on the port reserved for FDLs during the current cycle (column 5, lines 29 – 38). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hegde et al. and Robert et al. to include method, apparatus and network of claimed selecting a port reserved for MDLs; transferring data on the port reserved for MDLs during the current cycle; selecting a port reserved for FDLs; and transferring data on the port reserved for FDLs during the current cycle such as that taught by Carr selecting a port reserved for MDLs (Fig. 1, Fig. 2, element 5, loop Maintenance operation system as a port reserved for MDLs); transferring data on the port reserved for MDLs during the current cycle (column 5, lines 29 – 29 – 38); selecting a port reserved for FDLs (Fig. 1 and Fig. 2, element 7, loop facility assignment control system as a port reserved for FDLs); and transferring data on the port reserved for FDLs during the current cycle (column 5, lines 29 – 38)et al. in order to provide arrangements for provisioning service for a telecommunications customer (as suggested by Carr et al., see column 1, lines 10 –11).

9. Claims 11, 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kamiya et al. (US 20020039364 A1) in view of Hegde et al. (US 6810031 B1).

Regarding claims 11, 34, Kamiya et al. disclose the limitation of a method, a device that provides instructions that, when executed by a device, cause the machine to perform operations comprising: sequentially selecting a pair of ports from a plurality of pairs of ports wherein the pair of ports comprises a port connected to a first interface and a port connected to a second interface ("selecting a sequential one of different module patterns" correlates to sequentially selecting a pair of ports from a plurality of pairs of ports; page 1, paragraph [0014]; Fig.1, recited elements 204_1, 204_2 input ports correlates to a port connected to a first interface and a port connected to a second interface; page 3, paragraph [0036]; [0043]); Kamiya et al. do not disclose to transferring data on the port connected to the first interface during a current cycle; and transferring data on the port connected to the second interface during the current cycle. Hegde et al. disclose transferring data on the port connected to the first interface during a current cycle (column 5, lines 19 – 25); and transferring data on the port connected to the second interface during the current cycle (column 5, lines 19 – 30). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kamiya et al. to include transferring data on the port connected to the first interface during a current cycle; and transferring data on the port connected to the second interface during the current cycle such as that taught by Hegde et al. in order to provide controlling bandwidth in networking systems which are characterized by high-speed switches that switch data packets having variable size and format requirements (as suggested by Hegde et al., see column 1, lines 8 – 10).

10. Claims 12, 35, 13, 36, are rejected under 35 U.S.C. 103(a) as being unpatentable over Kamiya et al. (US 20020039364 A1) and Hegde et al. (US 6810031 B1) as applied to claims above 11, 34, and further in view of Carr et al. (US 5751802).

Regarding claims 12, 35, Kamiya et al. and Hegde et al. fail to disclose the method, apparatus and network of claimed wherein one pair of ports of the plurality of pairs of ports comprises a port reserved for MDLs and a port reserved for FDLs.

Carr et al. disclose the limitation of the method, apparatus and network of claimed wherein one pair of ports of the plurality of pairs of ports comprises a port reserved for MDLs (Fig. 1, Fig. 2, element 5, loop Maintenance operation system as a port reserved for MDLs) and a port reserved for FDLs (Fig. 1 and Fig. 2, element 7, loop facility assignment control system as a port reserved for FDLs; column 5, lines 29 – 38).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kamiya et al. and Hegde et al. to include method, apparatus and network of claimed wherein one pair of ports of the plurality of pairs of ports comprises a port reserved for MDLs and a port reserved for FDLs. such as that taught by Carr et al. in order to provide arrangements for

provisioning service for a telecommunications customer (as suggested by Carr et al., see column 1, lines 10 –11).

Regarding claims 13, 36, Kamiya et al. and Hegde et al. fail to disclose the method, apparatus and network of claimed further comprising: selecting a port reserved for MDLs; transferring data on the port reserved for MDLs during the current cycle; selecting a port reserved for FDLs; and transferring data on the port reserved for FDLs during the current cycle.

Carr et al. disclose the limitation of selecting a port reserved for MDLs (Fig. 1, Fig. 2, element 5, loop Maintenance operation system as a port reserved for MDLs); transferring data on the port reserved for MDLs during the current cycle (column 5, lines 29 – 29 – 38); selecting a port reserved for FDLs (Fig. 1 and Fig. 2, element 7, loop facility assignment control system as a port reserved for FDLs); and transferring data on the port reserved for FDLs during the current cycle (column 5, lines 29 – 38).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kamiya et al. and Hegde et al. to include method, apparatus and network of claimed selecting a port reserved for MDLs; transferring data on the port reserved for MDLs during the current cycle; selecting a port reserved for FDLs; and transferring data on the port reserved for FDLs during the current cycle such as that taught by Carr selecting a port reserved for MDLs (Fig. 1, Fig. 2, element 5, loop Maintenance operation system as a port reserved for MDLs); transferring data on the port reserved for MDLs

during the current cycle (column 5, lines 29 – 29 – 38); selecting a port reserved for FDLs (Fig. 1 and Fig. 2, element 7, loop facility assignment control system as a port reserved for FDLs); and transferring data on the port reserved for FDLs during the current cycle (column 5, lines 29 – 38)et al. in order to provide arrangements for provisioning service for a telecommunications customer (as suggested by Carr et al., see column 1, lines 10 –11).

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Ma (US 6493317 B1) teaches traffic engineering technique for routing inter-class traffic in a computer network.
- Choudhury et al. (5541912) disclose dynamic queue length threshold in a shred memory ATM switch.
- Hayano et al. (5132966) disclose call control with transmission priority in a packet communication network of an ATM type.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew C. Lee whose telephone number is (571) 272-3131. The examiner can normally be reached on Monday through Friday from 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wing Chan can be reached on (571) 272-7493. The fax

phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/Andrew C. Lee/::<04/01/2007>

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